WHAT'S NEW IN GYNAECOLOGIC ONCOLOGY

ANDREA GARRETT

METRO NORTH GP ALIGNMENT GYNAECOLOGY WORKSHOP

SEPTEMBER 2018

SUMMARY

- ***Endometrial Cancer***
  - Sentinel Nodes
- ***Cervical Cancer***
  - Screening
  - Laparoscopy/Minimally invasive surgery
- ***Ovarian Cancer***
  - *ECHO trial*
  - *IMAGE trial*
- ***Vulvar Cancer***
- ***Gestational Trophoblastic Disease***
  - Bhcg to be performed for abnormal bleeding

STATISTICS

- 6000 Australian women diagnosed with Gynaecologic malignancy each year
- 1769 Australian women die of their disease each year
- 10% of all new female cancer cases diagnosed
- 8% of all female cancer deaths

QCGC

- Provides optimal care for women with gynaecologic cancer
- Centralized statewide service for women (Established 1994)
- 10 Certified Gynaecologic Oncologists (CGO)
- 10 Locations
  - RBWH, Mater, Gold Coast (public)
  - Wesley, Greenslopes, St Andrews, Mater, Pindarra (private)
  - Sunshine Coast, Toowoomba (private)
- 2 satellite services – Townsville and Darwin

QCGC

- Pre-invasive disease of Cervix, Vagina and Vulva
- Cancers of the uterus, tubes, ovaries, cervix, vagina and vulva
- Gestational Trophoblastic Disease
- Risk reducing surgery for those with Hereditary Cancers
- Complicated benign gynaecology
- Obstetric haemorrhage

REFERRALS

- New referral form developed
- Available at Forms Online on RBWH intranet
- Single Page
- Attach **ALL** relevant information
- Attach letter if complicated patient

TRIAL

DO NOT WRITE IN THIS BINDING MARGIN

Do not reproduce by photocopying

All clinical information and amendments must be conducted through Health Information Services

MR C 6386

V1.00 - 08/2018

Locally Printed

C0201:06386

Queensland Government

Royal Brisbane & Women's Hospital

QUEENSLAND CENTRE FOR GYNAECOLOGICAL CANCER (QCGC) REFERRAL

(Affix patient identification label here or write details below)

Hospital URN *(if applicable)*:

Family name: _____

Given names: _____

Date of birth: ____/____/____ Sex: ☐ M ☐ F ☐ I

Address: _____

Phone - Home: _____ Work: _____

Mobile: _____

Email address: _____

Medicare No: _____ Ref No: _____

Referring Consultant Details

Date of referral: ____/____/____

Consultant name: _____

Referring hospital: _____

Phone: _____ Email: _____

GP Details

GP name: _____

Address: _____

_____

Phone: _____ Email: _____

Please confirm that this referral has been discussed with the patient, and that she is aware the QCGC will contact her: ☐ Yes

Ethnicity: _____

Is an interpreter required? ☐ Yes ☐ No

If Yes, specify language: _____

Clinical question:

Advice only	☐ Yes	☐ No
Take over care	☐ Yes	☐ No
Location of surgery	☐ Local	☐ QCGC/Brisbane

Presenting complaint: *(for complex patients please attach a detailed referral letter)*

Previous medical history:

Previous surgical history:

Medications *(list all current)*:

Patient on anticoagulants? ☐ Yes ☐ No If yes, drug name: _____

Has patient been advised to cease anticoagulants? ☐ Yes ☐ No If yes, what date: ____/____/____

Allergies *(list all allergies and reactions)*:

Obstetric history:

Parity: _____ Mode of delivery: _____ Further fertility desired: ☐ Yes ☐ No ☐ NA

Cancer type and investigations - please attach a copy of all histology, imaging and laboratory results. A referral will not be accepted if this form is incomplete:

Ovary/Tube/Peritoneal:
- ☐ Suspected / proven
- ☐ CT chest, abdomen and pelvis
- ☐ Pelvic USS
- ☐ Ca125
- ☐ CEA
- ☐ Ca19.9
- ☐ Other: _____

Imaging performed: Date: ____/____/____
Imaging company: _____

Histology performed: Date: ____/____/____
- ☐ Qld Health
- ☐ S&N
- ☐ QML
- ☐ Other: _____

Blood tests performed: Date: ____/____/____
- ☐ Qld Health
- ☐ S&N
- ☐ QML
- ☐ Other: _____

Uterus:
- ☐ Biopsy proven
- ☐ CT chest, abdomen and pelvis
- ☐ Pelvic USS
- ☐ Ca125
- ☐ HE4
- ☐ Other: _____

Imaging performed: Date: ____/____/____
Imaging company: _____

Histology performed: Date: ____/____/____
- ☐ Qld Health
- ☐ S&N
- ☐ QML
- ☐ Other: _____

Blood tests performed: Date: ____/____/____
- ☐ Qld Health
- ☐ S&N
- ☐ QML
- ☐ Other: _____

Cervix:
- ☐ Biopsy proven
- ☐ MRI pelvis
- ☐ PET/CT (if available)
- ☐ Other: _____

Imaging performed: Date: ____/____/____
Imaging company: _____

Histology performed: Date: ____/____/____
- ☐ Qld Health
- ☐ S&N
- ☐ QML
- ☐ Other: _____

Blood tests performed: Date: ____/____/____
- ☐ Qld Health
- ☐ S&N
- ☐ QML
- ☐ Other: _____

Vulva:
- ☐ Biopsy proven VIN / invasive
- ☐ CT chest, abdomen and pelvis (if proven invasion)
- ☐ Bilateral groin USS
- ☐ Other: _____

Imaging performed: Date: ____/____/____
Imaging company: _____

Histology performed: Date: ____/____/____
- ☐ Qld Health
- ☐ S&N
- ☐ QML
- ☐ Other: _____

Blood tests performed: Date: ____/____/____
- ☐ Qld Health
- ☐ S&N
- ☐ QML
- ☐ Other: _____

Vagina:
- ☐ Biopsy proven VAIN / invasive
- ☐ MRI pelvis
- ☐ Other: _____

Imaging performed: Date: ____/____/____
Imaging company: _____

Histology performed: Date: ____/____/____
- ☐ Qld Health
- ☐ S&N
- ☐ QML
- ☐ Other: _____

Blood tests performed: Date: ____/____/____
- ☐ Qld Health
- ☐ S&N
- ☐ QML
- ☐ Other: _____

Other:
Relevant investigations

Imaging performed: Date: ____/____/____
Imaging company: _____

Histology performed: Date: ____/____/____
- ☐ Qld Health
- ☐ S&N
- ☐ QML
- ☐ Other: _____

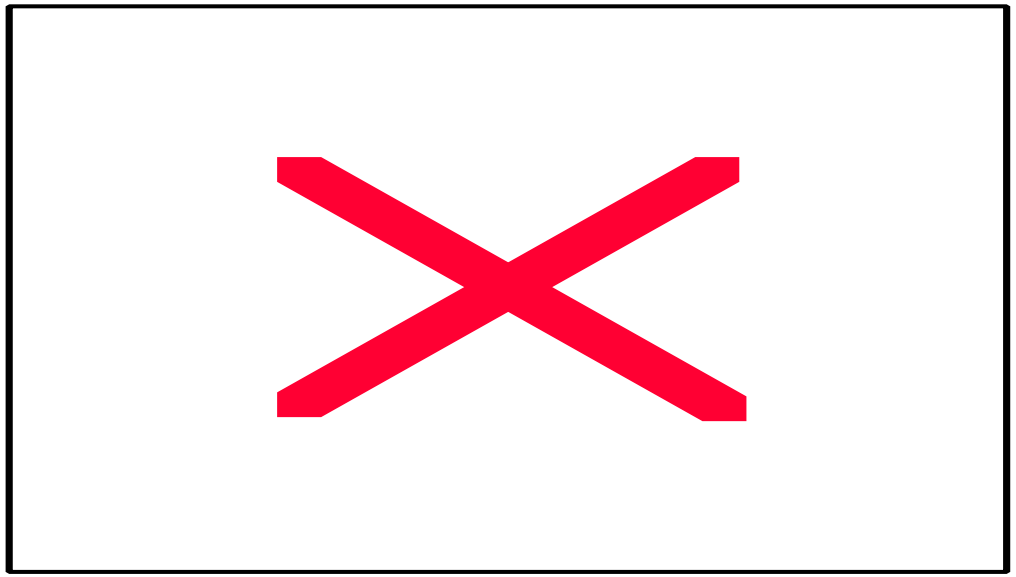
Blood tests performed: Date: ____/____/____
- ☐ Qld Health
- ☐ S&N
- ☐ QML
- ☐ Other: _____

Print name: _____ Designation: _____ Sign: _____ Date: ____/____/____

QLD CENTRE FOR GYNAECOLOGICAL CANCER (QCGC) REFERRAL

ENDOMETRIAL CANCER

- Most common gynaecologic malignancy - 2963 women will be diagnosed this year
- Lifetime Risk ~3%
- Treatment
  - Surgery (TLH, BSO, +/- nodes)
  - Progesterone Therapy (Mirena, Oral)
- Lymphadenectomy
  - Routine
  - Selective
  - Sentinel nodes



SENTINEL NODES

- Remove the first node that lymphatic channels drain to
- Technique utilized in vulval surgery – patent blue dye and Technetium*
- Becoming more widely used in endometrial cancer
- Advantages - less lymphodoema risk, increased pick up of micro-metastases
- Disadvantages – learning curve for injection technique
- Near Infra-Red Camera required
- Use Indigocyanine Green (ICG) dye (1ml superficial and 1ml deep)

EVIDENCE

- **FIRES Study**
  - Multi-centre, prospective cohort trial
  - Clinical Stage I disease
  - SLN followed by full pelvic LND (+/- para-aortic nodes)
  - 385 women enrolled
  - 86% successful mapping of at least one SLN
  - 97.2% sensitivity
  - NPV 99.6%
  - **False negative rate of 3%**
  - **Acceptable accuracy, reduced morbidity**
    - ***Lancet Oncol. 2017 Mar;18(3):384-392***

LOGISTICS

- ***Where to inject the dye?***
  - Cervical
  - Subserosal/Fundal
  - Hysteroscopic
  - **Increased detection rate if injected to cervix**
- **Where do the LN map to?**
  - ***Inter-iliac***
  - ***Obturator***
  - Pre-Sacral
  - Common iliac and para-aortic

DYES AVAILABLE

- ***Sentinel Blue (74%)***
- Stains tissue blue, “blurs” tissue planes

- ***Technetium 99***
- Requires laparoscopic Geiger counter
- Relies on other staff to activate machine

- ***Indigo-Cyanine Green (ICG) (96%)***
- Doesn’t stain tissue

ICG has similar rates of overall detection and bilateral detection of sentinel nodes

Ruscito et al. Ann Surg Oncol. 2016 Oct;23(11):3749-3756

ICG

- Excreted in bile
- Absorption 600-900nm, emits flourescence at 750-950nm
- Applications for use
  - Colorectal surgery to assess viability of anastomosis
  - Plastic Surgery to assess flap vasculature
  - General Surgery – laparoscopic cholecystectomy to highlight GB vasculature
  - Ophthalmic angiography
  - Requires Near Infra-Red technology
- Does not change colour of tissue to the naked eye

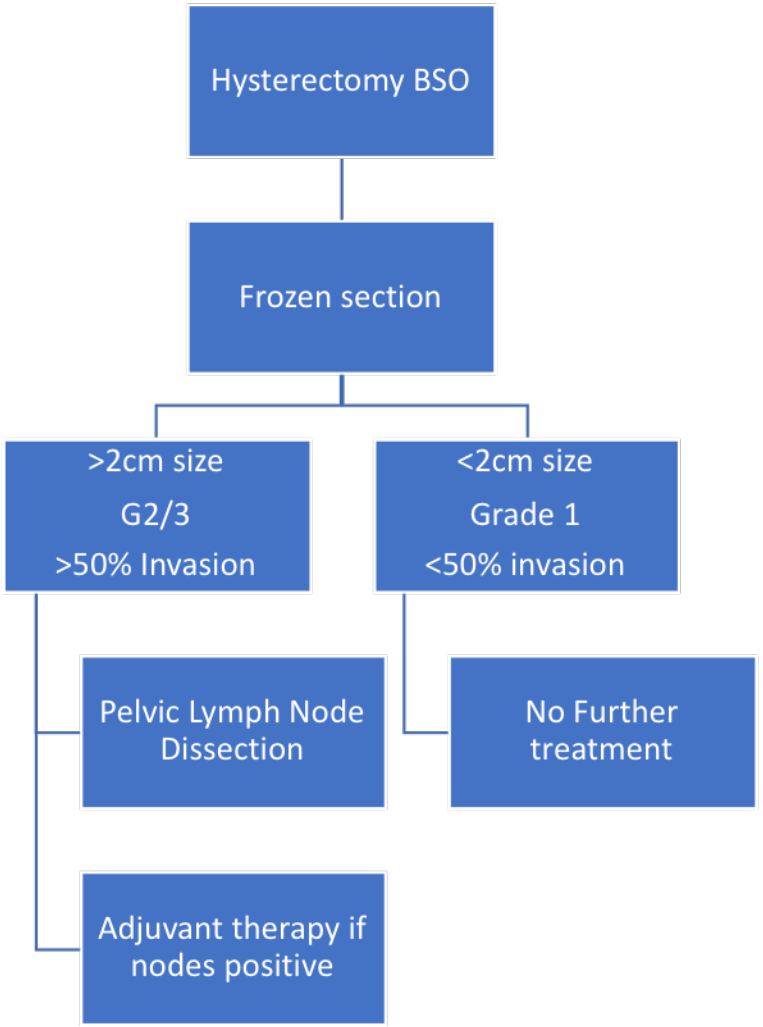
Injection Technique

- ICG diluted to 1mg/ml
- 4mls used per patient
- Inject at 3 and 9 o’clock
- 1ml deep and 1ml superficial
- Inject prior to prep and drape

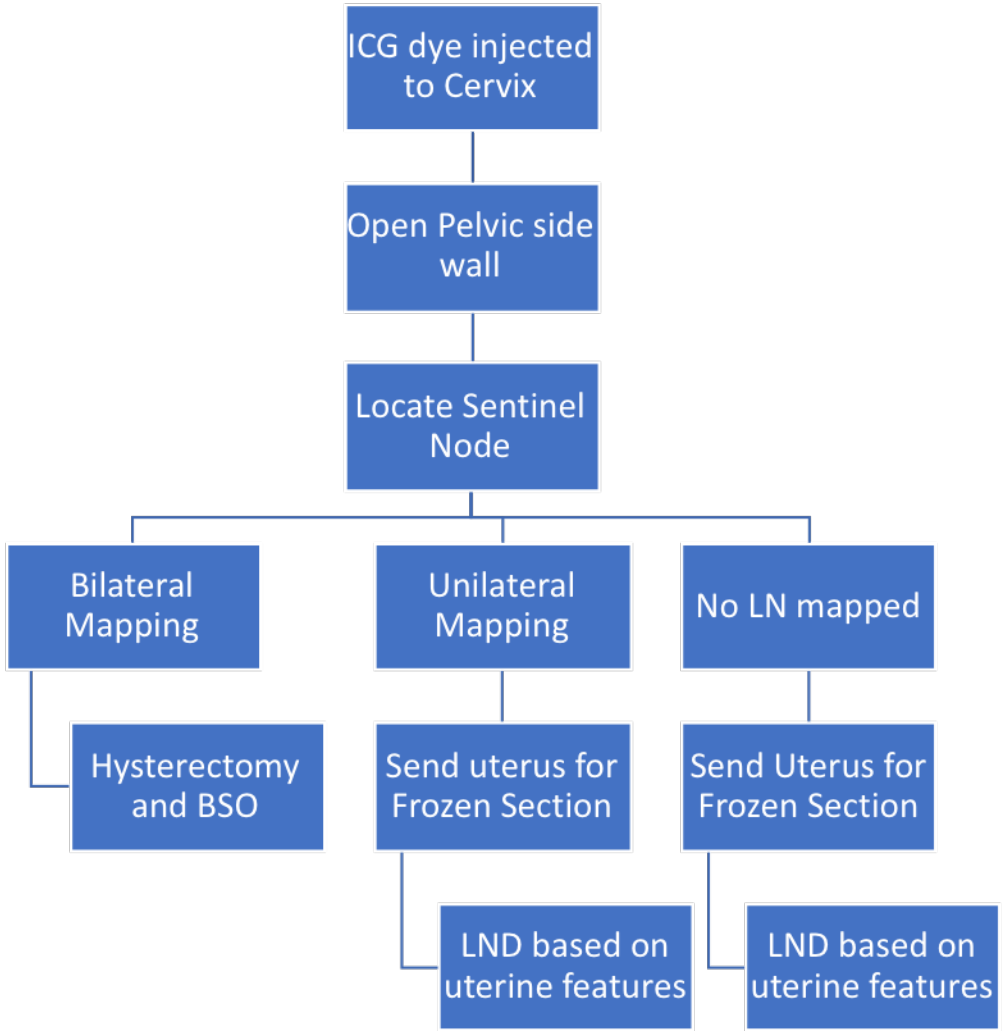
Pathology Technique

- Ultra staging of node
- Immunohistochemistry
- Establishment of protocol

OLD SURGICAL ALGORITHM



NEW SURGICAL ALGORITHM

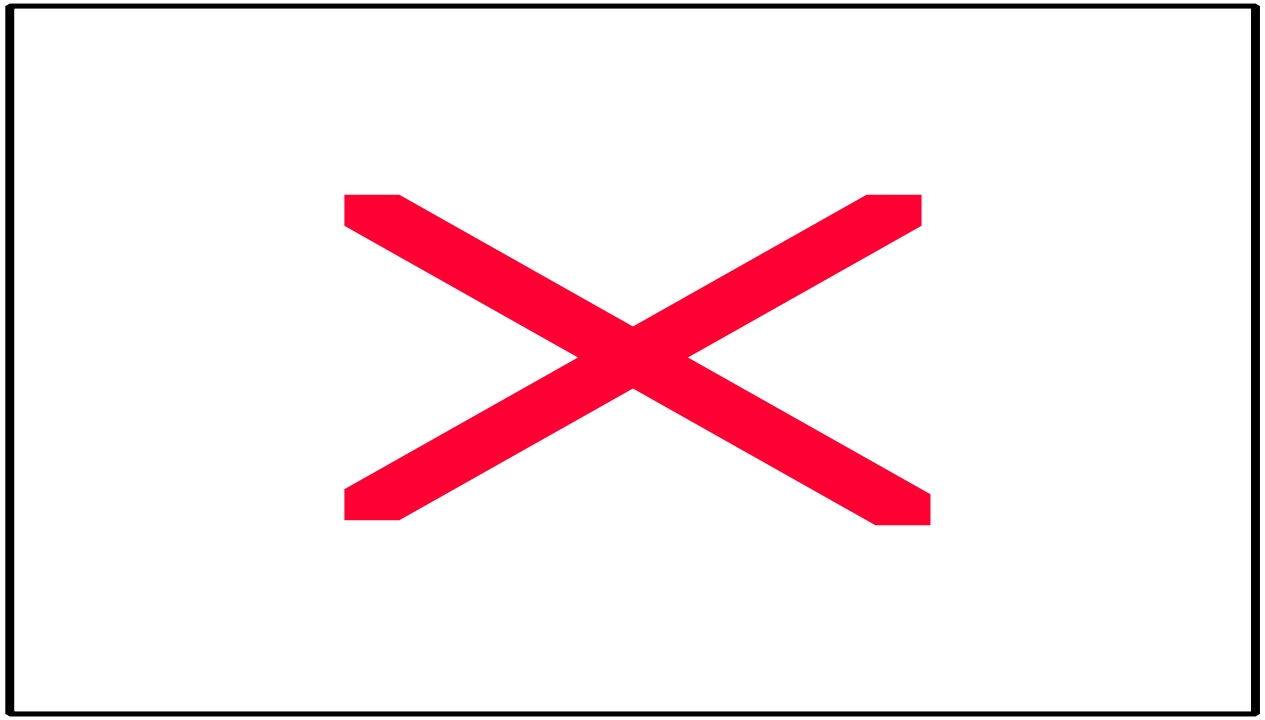


EAC – SURGICAL TREATMENT

- NTFEP grant received – purchase equipment and ICG dye for 2 years
- Commenced February 2018
- Endometrial cancer cases at RBWH = 51
- Surgical Treatment = 38
- SLN performed = 22
- Bilaterality = 17
- Failed mapping = 2
- Positive SLN = 1

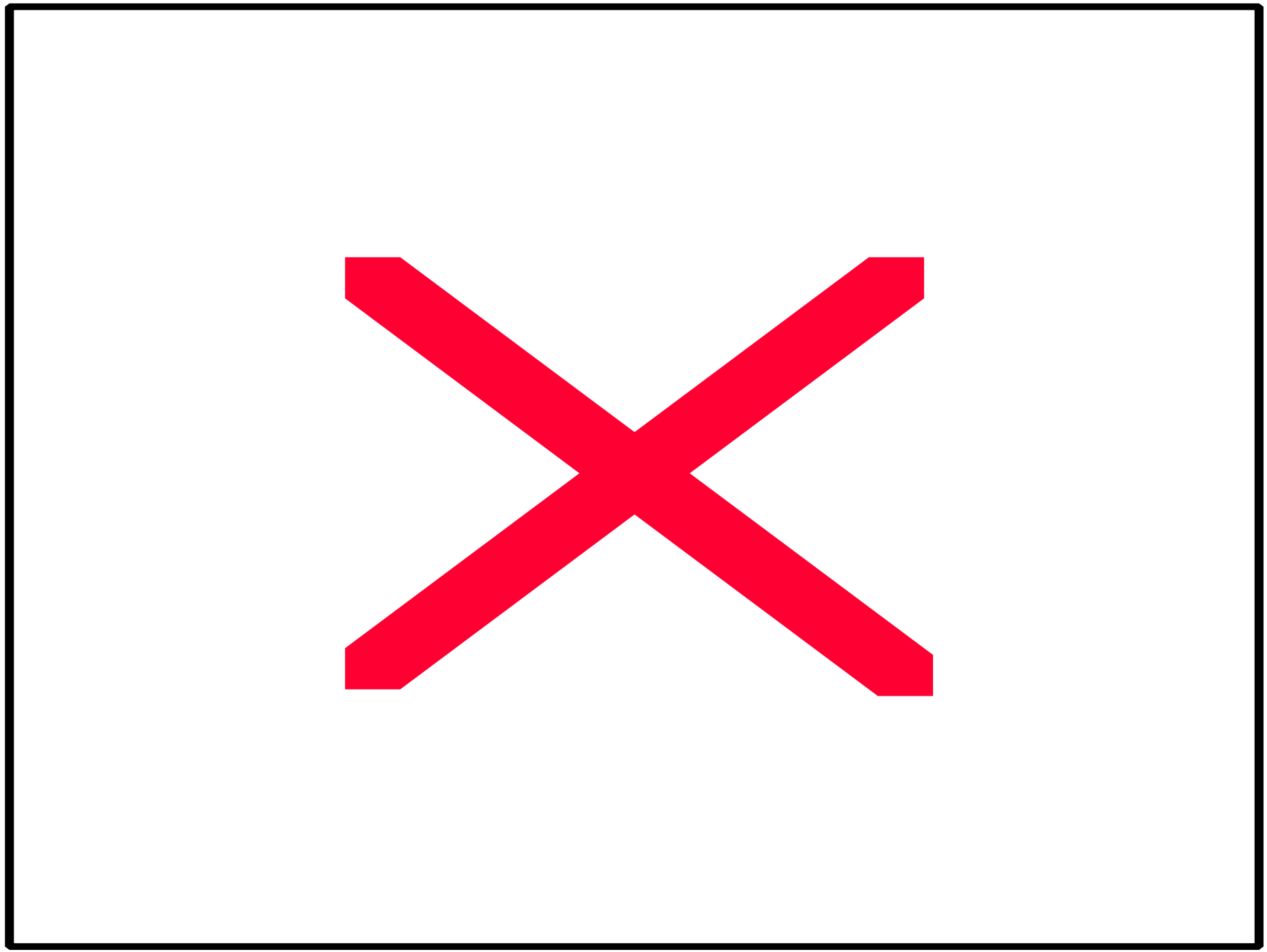
CERVICAL CANCER

- 1.4% lifetime risk
- 930 women expected to be diagnosed with Cervical Cancer this year
- Cancer rate halved since introduction of National Cervical Screening



SCREENING

- December 2017, invited to screen,commence age 25, cease age 74
- Primary HPV screening
- Re-screen in 5 years if HPV negative
- Reflex LBC if HPV positive
- HPV 16/18 positive, any result LBC – refer for colposcopy
- HPV other positive
  - LBC normal, pLSIL, LSIL – repeat 12/12
  - LBC pHSIL, HSIL, positive at 12/12 – refer for colposcopy
- ***https://wiki.cancer.org.au/australia/Guidelines:Cervical_cancer/Screening***

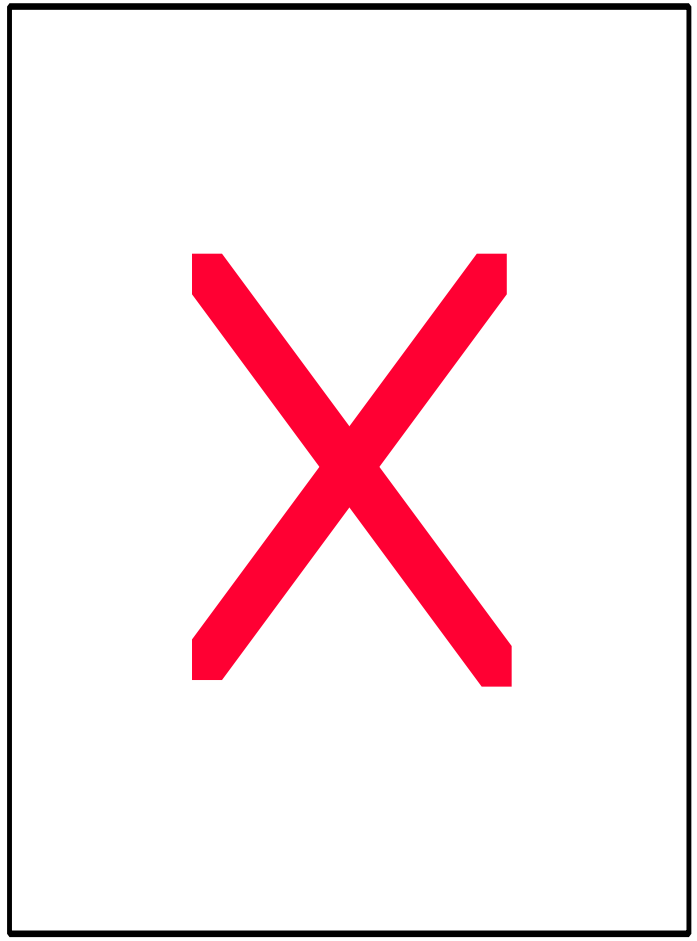


LACC TRIAL

- Other trials in endometrial, colorectal, gastric cancers have shown better surgical outcomes with equivalent survival rates
- LACE trial reproduced for cervical cancer – LACC trial
- International, multi-centre, RCT of Stage IA2 – IB1 cancers
- Randomised to open or minimally invasive procedure (robot or TLH)
- Planned to recruit 740 cases
- Trial stopped early due to safety concerns after recruiting 636 cases
- Presented at SGO meeting New Orleans March 2018

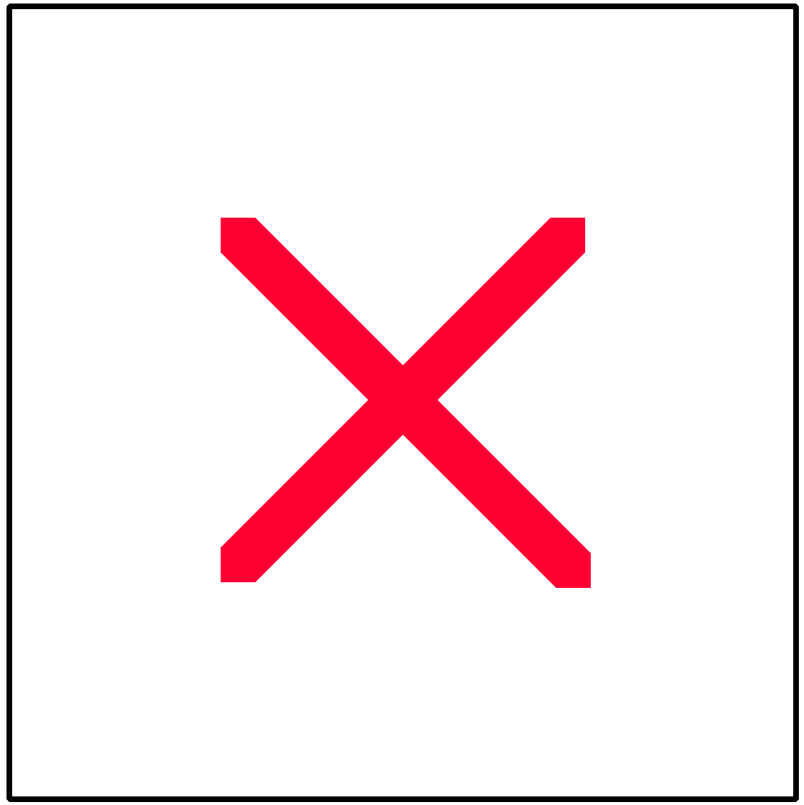
LACC TRIAL RESULTS

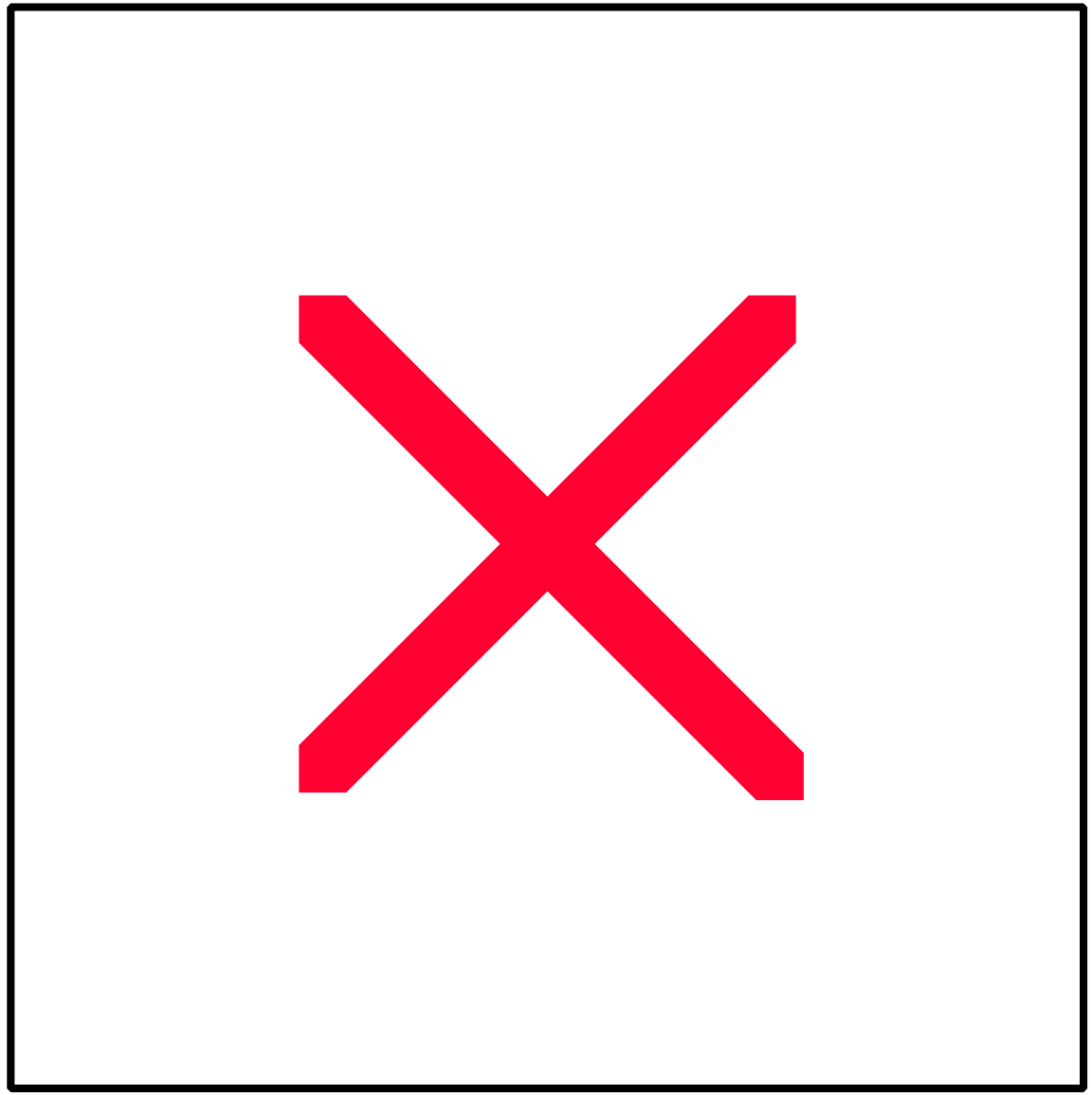
- 636 patients recruited
- ***Recurrence***
  - 27 in MI arm vs 7 in Open arm
  - 19 loco-regional recurrences
  - HR of DFS 3.74
- ***Death***
  - 19 in MI arm vs 3 in Open arm

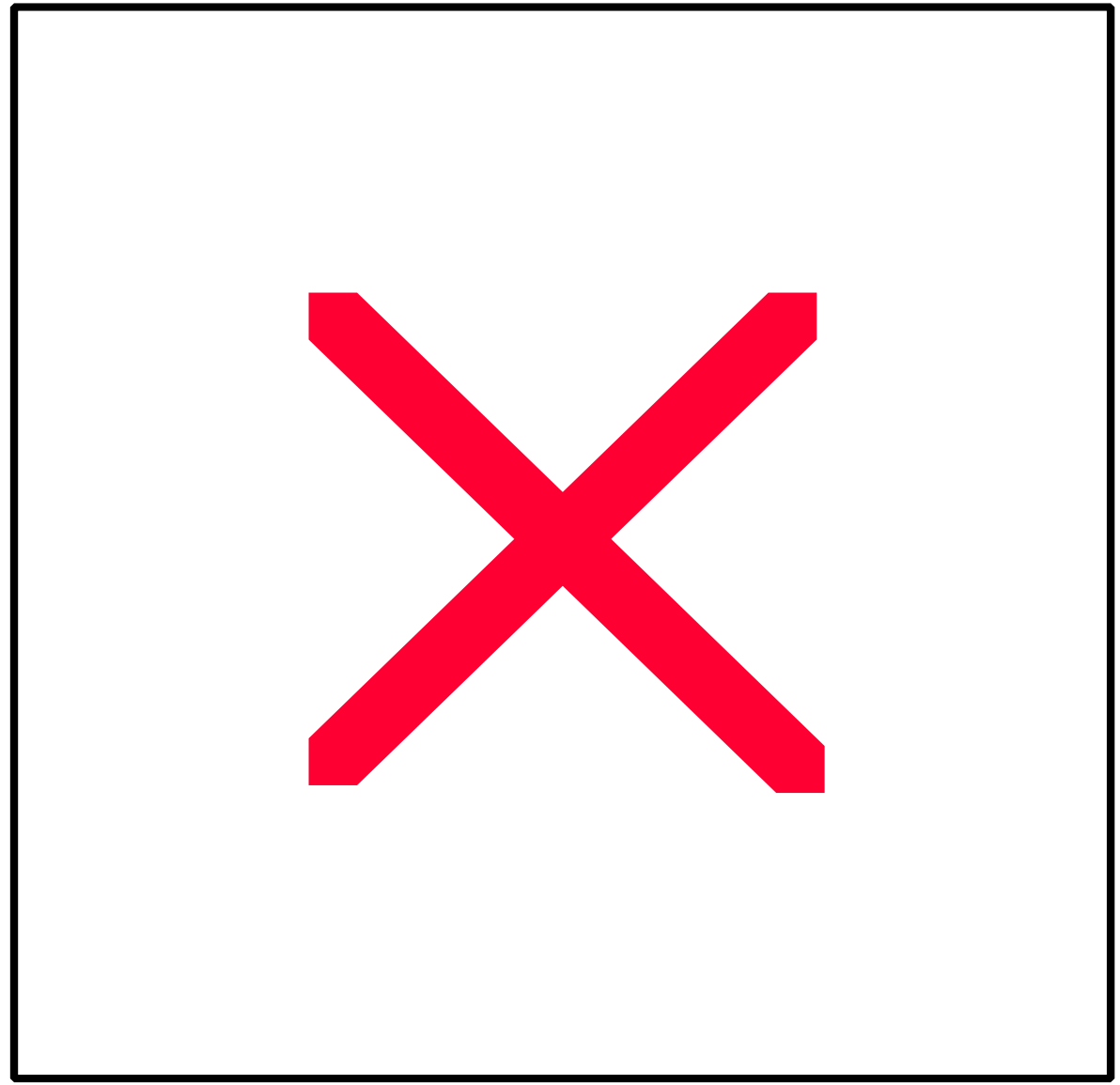


NATIONAL CANCER INSTITUTE

- Surveillance, Epidemiology and End Results (SEER) data
- Retrospective review of MIS vs open
- MIS use increased from 2006
- Mortality increased with increasing MIS use







CRITICISMS

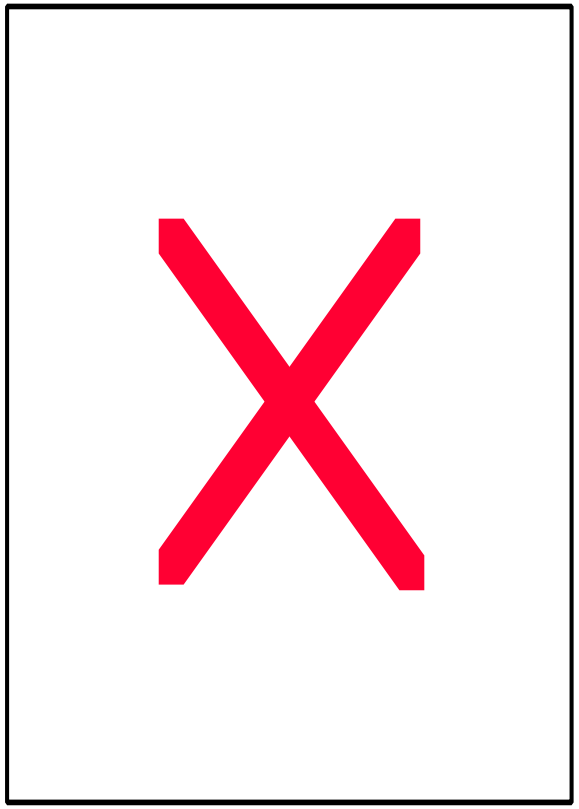
- Not long enough follow up
- Only 40% complete data presented (tumour size, histology)
- Survival rate “too high” – recurrence rate reported as 2.2% for open arm, compared with 10% in previous studies
- Experience of surgeon – learning curve associated with procedure should be 30-40 cases, but only needed to be 10 cases for LACC
- Extent of parametrial excision smaller for MIS
- Use of manipulator - ? affects tumour spill/seeding
- ***Need to discuss with patient and agree on mode of entry***

OVARIAN CANCER

- 1.5% lifetime risk
- 1613 women expected to be diagnosed with Ovarian Cancer this year
- Surgery and Chemotherapy are the mainstays of treatment
- Diagnosed in advanced stage
- Recurrence risk 62%
- 5YS 40-60%

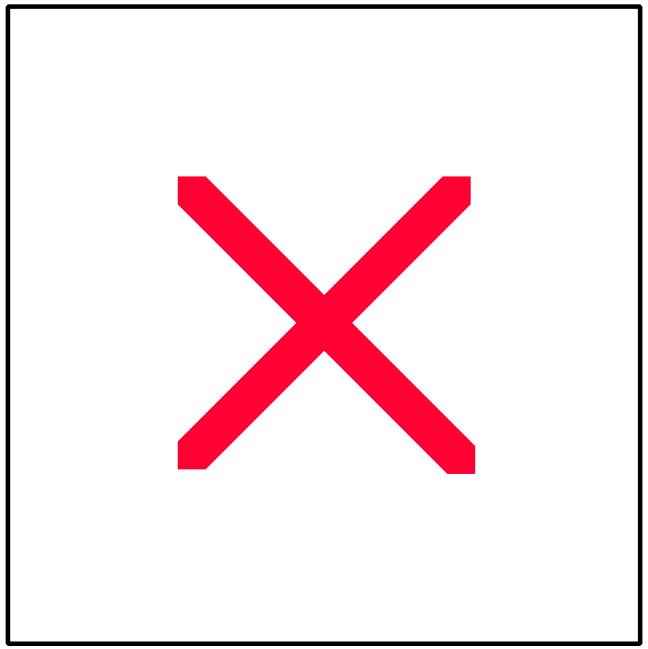
IMAGE TRIAL

- Suspected ovarian, tubal or peritoneal cancer
- Gated PET/CT
  - Aims to reduce (motion) artefact to improve scan quality
- Assess for extent and location disease
- Scan may identify unusual sites of disease
  - Internal mammary glands, cardio-phrenic nodes
- Will this change management?
  - Neo-adjuvant chemotherapy
  - Primary surgical cyto-reduction



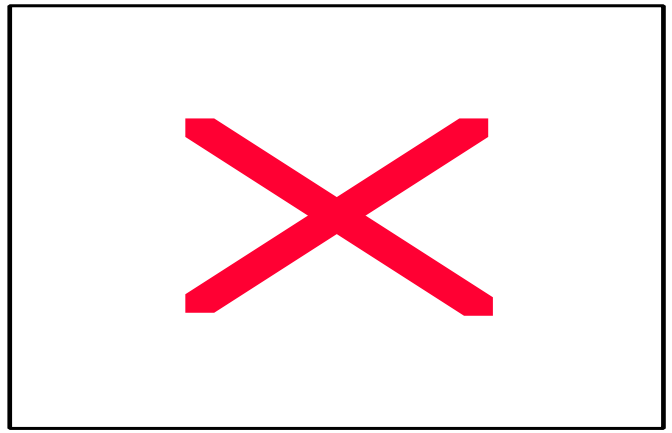
ECHO TRIAL

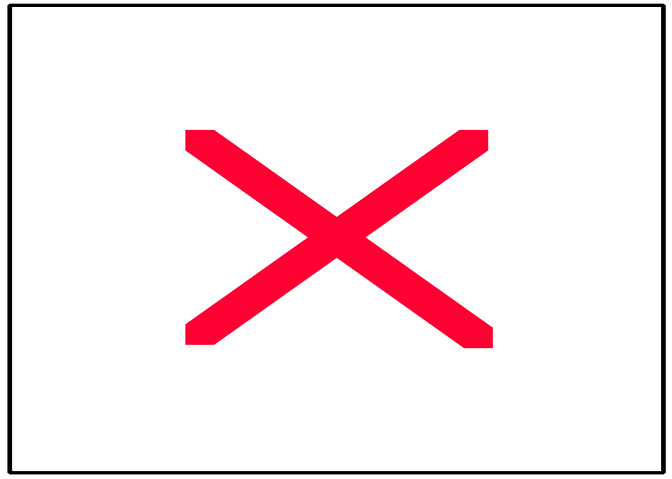
- Breast cancer studies show exercise during treatment improves survival
- Physiological and Psychological benefits
- Lessen treatment related side effects, improved QoL
- Can this be extrapolated to ovarian cancer?
- RCT of “exercise” vs “routine” activity during chemo
- Exercise physiologist develops a manageable program



VULVAL CANCER

- Least common gynaecologic malignancy
- 300 cases per year in QLD
- ***Vulva***
  - Radical Wide Local Excision (WLE)
- ***Groins***
  - Sentinel Node
  - Full lymphadenectomy
- ***Repair***
  - Primary closure
  - Flap repair



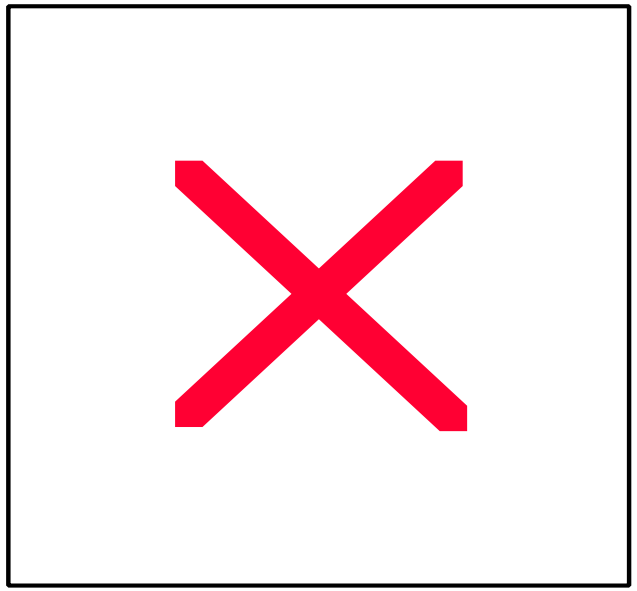


ABNORMAL BLEEDING

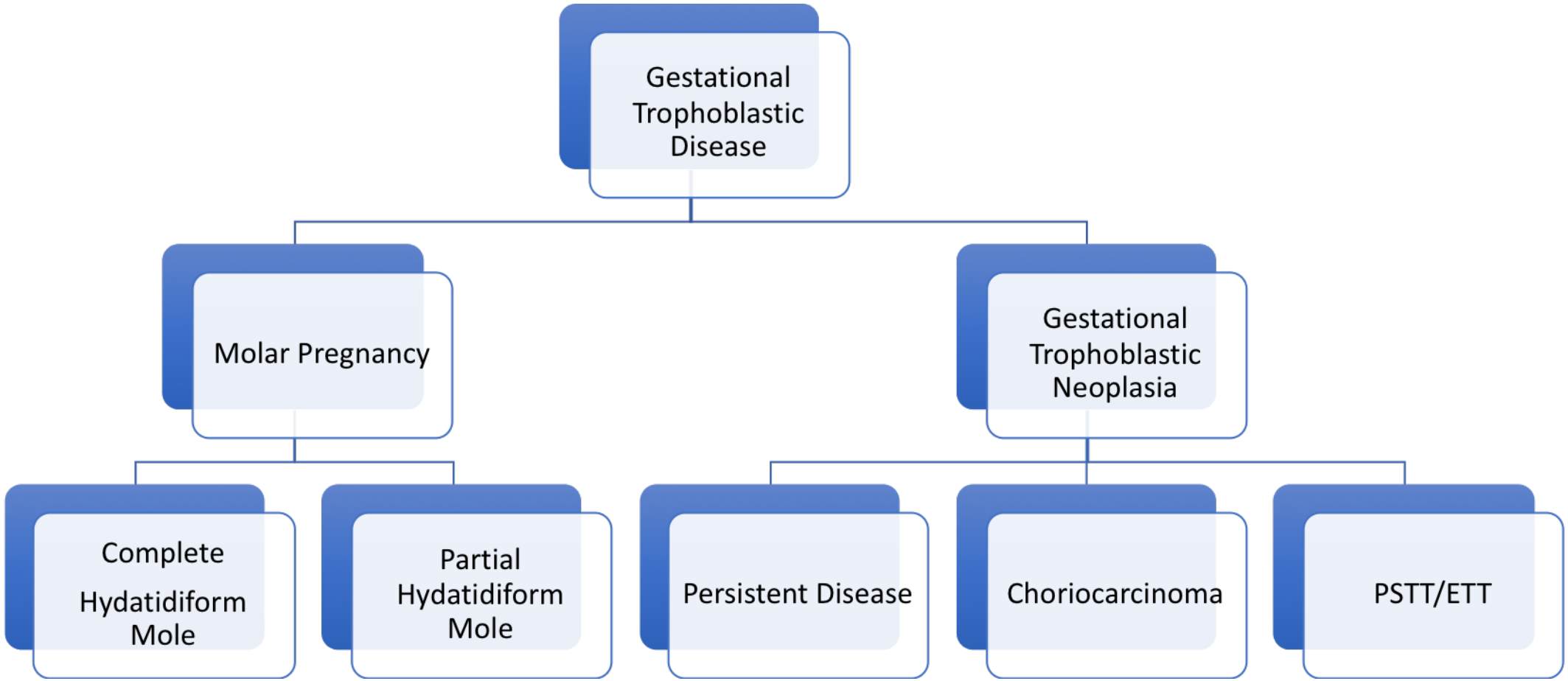
- Menorrhagia
- Metrorrhragia (irregular or prolonged) menses
- Intermenstrual Bleeding (IMB)
- Post Coital Bleeding (PCB)
- Post Menopausal Bleeding (PMB)
- Post Partum Bleeding
  - Endometritis
  - Retained products
  - **Gestational Trophoblastic Disease**
    - **Perform Bhcg in women of reproductive age with persistent abnormal bleeding**

GESTATIONAL TROPHOBLASTIC DISEASE

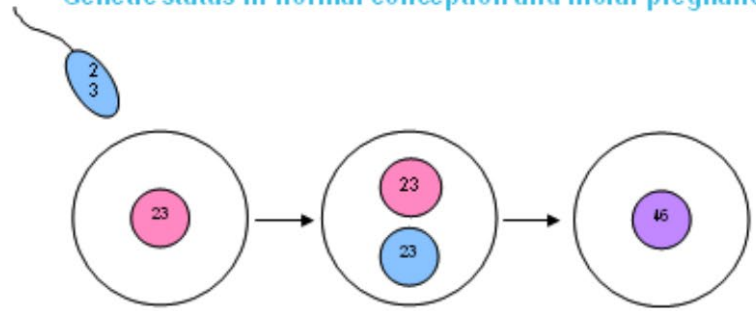
- Occurs 1:1500 pregnancies
- Approximately 180 cases per year in QLD
- QLD Trophoblast Centre
  - Statewide service
  - Housed at RBWH
  - ~ 60% of all cases GTD in the state
  - Uniform management of GTD
  - Provide expert opinion (interstate, overseas)



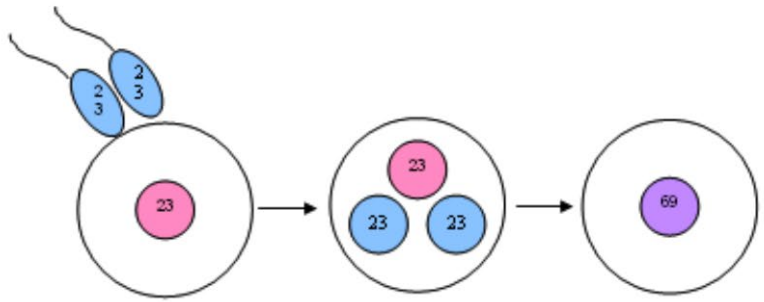
DEFINITION


Gestational Trophoblastic Disease
Molar Pregnancy
Gestational Trophoblastic Neoplasia
Complete Hydatidiform Mole
Partial Hydatidiform Mole
Persistent Disease
Choriocarcinoma
PSTT/ETT

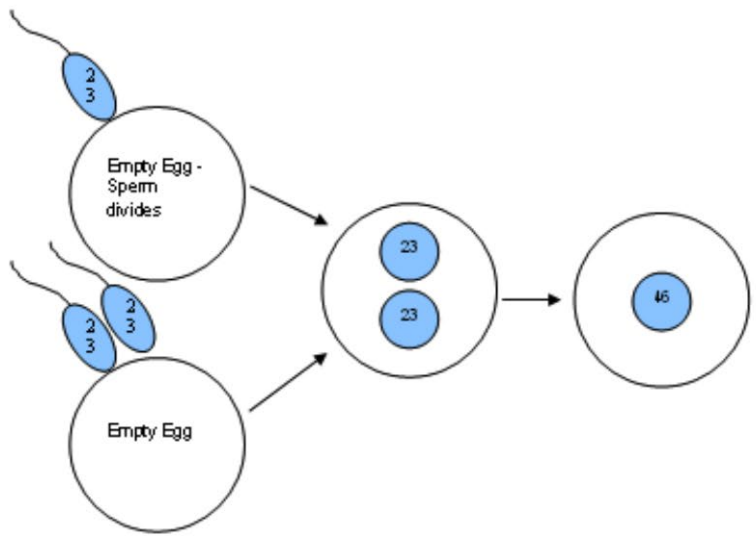
Genetic status in normal conception and molar pregnancy.



Normal Conception, viable fetus - 2 sets of genes - 1 maternal & 1 paternal



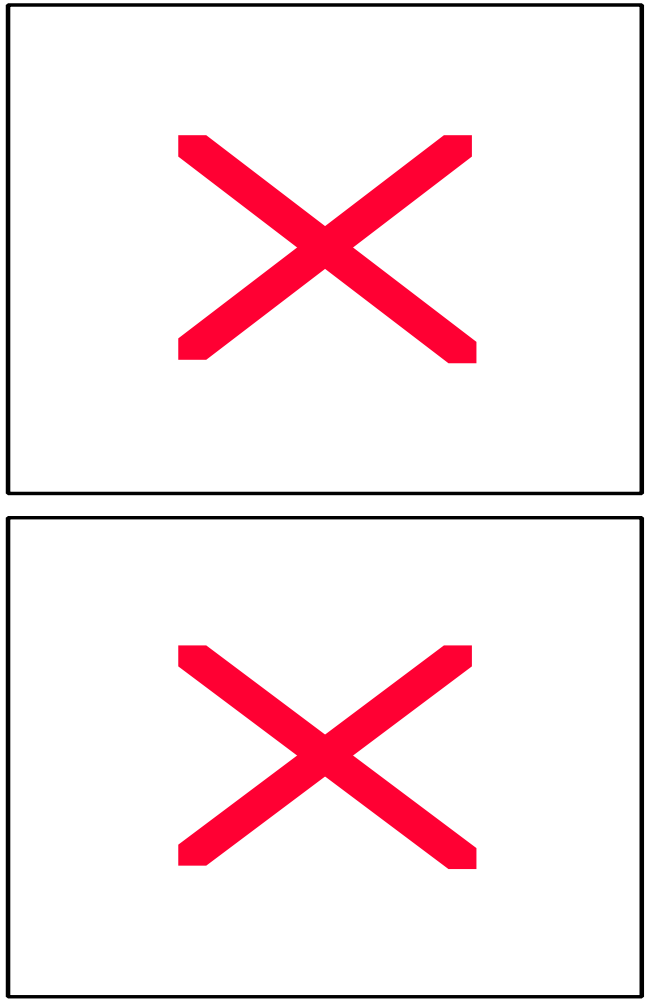
Partial Mole, non-viable fetus – 3 sets of genes – 1 maternal & 2 paternal



Complete Mole, no fetus – 2 sets of genes – 0 maternal & 2 paternal

DIAGNOSIS

- ***Complete Mole***
  - No foetal pole
  - Abundant placental tissue
  - Snowstorm appearance
  - Cystic spaces
  - Theca lutein ovarian cysts
  - Hyperemesis
- ***Partial Mole***
  - Usually presents as miscarriage
  - Diagnosed after D&C - triploid



MANAGEMENT

- Suction D&C performed
  - Under USS guidance
  - Check TFT prior

- **Monitor Bhcg weekly until negative**
  - PHM – stop testing once gets to negative
  - CHM – monthly testing for 6/12 once reaches negative

- Register with QTC at diagnosis – **CALL 3646 4401**

PERSISTENT DISEASE

- Bhcg rise of >10% over 2 weeks
- Bhcg plateau/fall <10% over 3 weeks
- Choriocarcinoma, PSTT, ETT – can occur after normal pregnancy
- Persistent Bhcg after 6/12*

- Assess for metastatic disease
- Calculate WHO prognostic Score

WHO PROGNOSTIC SCORE

	0	1	2	4
Age	< 40	≥ 40		
Antecedent Pregnancy	Mole	Abortion	Term Gestation	
Time Interval (months)	< 4	4 - 6	7 - 12	> 12
Bhcg Level	10^3	10^3-10^4	10^4-10^5	> 10^5
Site of metastases	Lung	Spleen, kidney	GIT	Liver, brain
Size of metastases	< 3cm	3-4cm	≥ 5cm	
Number of metastases		1 -4	5 -8	> 8
Previous Failed Chemotherapy			Single drug	Multiple drugs

CHEMOTHERAPY

- **Low Risk Disease (</=6)**
  - Methotrexate
  - Actinomycin D
- Treat every 2 weeks until Bhcg negative
- Treat for additional 3 cycles after negative for consolidation
- Mild toxicity

- **High Risk Disease (>/=7)**
  - EMACO
  - Day 1,2 and Day 8
- Treat every 2 weeks until Bhcg negative
- Treat for additional 3 cycles after negative for consolidation
- Toxicity increased

FUTURE PREGNANCY

- Risk of recurrence ~1%
- Delay pregnancy until monitoring complete
  - PHM – once negative
  - CHM – after 6/12
  - Chemo – after 12/12
- Early USS to confirm location and viability
- Routine antenatal care
- Bhcg 6/52 post partum
- **CALL QTC on 07 3646 4401**

SUMMARY

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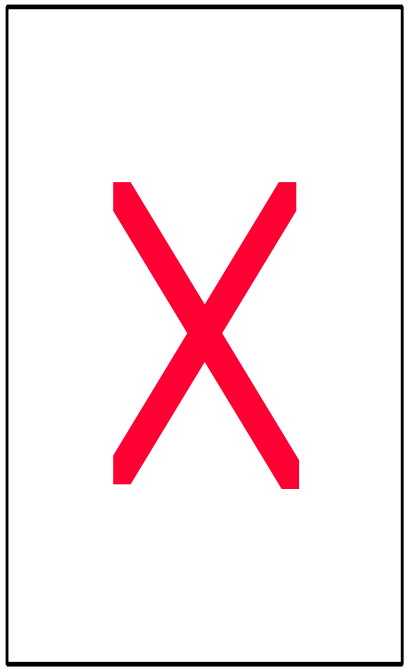
  - *ECHO trial*
  - *IMAGE trial*
- ***Vulvar Cancer***
- ***Gestational Trophoblastic Disease***
  - Abnormal bleeding warrants Bhcg



THANK YOU

?? QUESTIONS ??